

digital

FIELD CHANGE ORDER

APPLICABILITY

RETROFIT ALL VAX 11/780'S AT SYSTEM REVISION LEVEL 3 TO SYSTEM REVISION LEVEL 4.

MINIMUM ACCEPTABLE REVISION LEVEL FOR SPARES STOCK IS ETCH REVISION "D" M8235, CS REVISION "J1" OR LATER, ETCH REVISION "E" M8235, CS REVISION "L" OR LATER.

SPECIAL TEST EQUIPMENT, TOOLS, or SUPPLIES
(Not included in the Field Retrofit Kit)

NONE

FIELD INSTALLATION and TEST PROCEDURE

SEE PAGES 2 THRU 9 OF THIS FCO.

PROBLEM SYMPTOM: MUIP INSTRUCTION INTERMITTENTLY PRODUCES INCORRECT RESULTS.

NOTE: THIS FCO INCORPORATES ECO M8235-0009.

FCO

VAX

R

0004

PAGE

1 of 10

Level of Urgency (LOU)

STATUS LOU	FCO EXPENSE RESPONSIBILITY		
	WARRANTY	K	PER CALL
Mandatory	DIGITAL		
Required			CUST
Specification			CUST
Improvement			CUST
Hardware Option	PURCHASEABLE OPTION		
Cosmetic	CUST	CUST	CUST

ESTIMATED TIME TO INSTALL and TEST (on-site)
(Travel time not included)

2.0

DECIMAL HOURS

On-site FCO installation, by DEC, will be in accordance with both APPLICABILITY and the above FCO EXPENSE RESPONSIBILITY matrix.

QUICK CHECK (To determine if FCO has been installed)

PRESENCE OF 23-058C6-00 ROM IN SPARE IC LOCATION E123 ON M8235.

LAST PREVIOUS FCO: R0003 R0002, R0001

RELATED OR PREREQUISITE FCO s / MCO s

FCO KIT CHARGES (United States and Canada only)

KIT ITEM	DOCUMENTATION		PARTS	OTHER
	<input checked="" type="checkbox"/> FCO	<input type="checkbox"/> PRINTS	\$10.00	✖

Parts charges are as of FCO release date and are subject to change.

PARTS AVAILABILITY DATE OCTOBER 1980

LOGISTICS CODING 1.5K 1.5K 1.7K

LOGISTICS REVIEW

QTY PART NUMBER DESCRIPTION

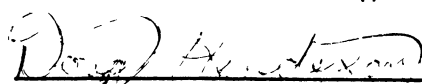
SEE PAGE 2 FOR KIT CONTENTS

ORDER BY THIS NUMBER	KIT CONTAINS		
	FCO	PRINTS	PARTS
EQ-01058	X		X
FA-04272	X		

*PARTS PRICE UNDETERMINED AT DATE OF FCO RELEASE.

COMPATIBILITY NOTE: THIS FCO REQUIRES WCS REVISION 122 FLOPPIES WHICH WILL BE AVAILABLE IN VAX DIAGNOSTIC UPDATE RELEASE "V".
DIAGNOSTIC UPDATE RELEASE "V" IS TO BE RELEASED IN SEPTEMBER 1980.
DO NOT IMPLEMENT THIS FCO WITHOUT WCS FLOPPY REVISION 122 OR LATER.

APPROVED - Field Service Product Support



DOUG HENDERSON

LIBRARY TYPE:
VAX

LKQ

FCO RELEASE DATE

SEPTEMBER 3, 1980

KIT CONTENTS

<u>QTY.</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>
2	23-058C6-00	FPLA ROM
1	90-8356-00	BRADY MARKER, 1 LETTER, 1 CARD EACH: L
2	12-14314	CONNECTOR, 2 POSITIVE, BLUE

REWORK PROCEDURE
FOR
VAX-R0004

1. POWER DOWN THE VAX SYSTEM.
2. REMOVE M8235 FROM SLOT 23.
3. INSTALL NEW FPLA ROM (DEC 23-058C6-00) IN SPARE IC LOCATION E123. (SEE PAGE 4)
4. ATTACH BRADY MARKER TO M8235 TO INDICATE NEW CS "L". (SEE FIGURE 1)
5. INSERT M8235 INTO SLOT 23.

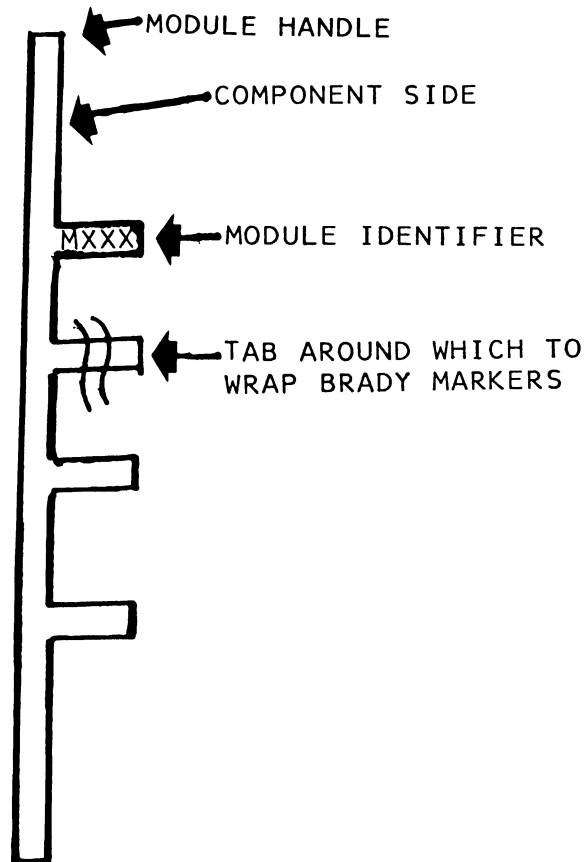
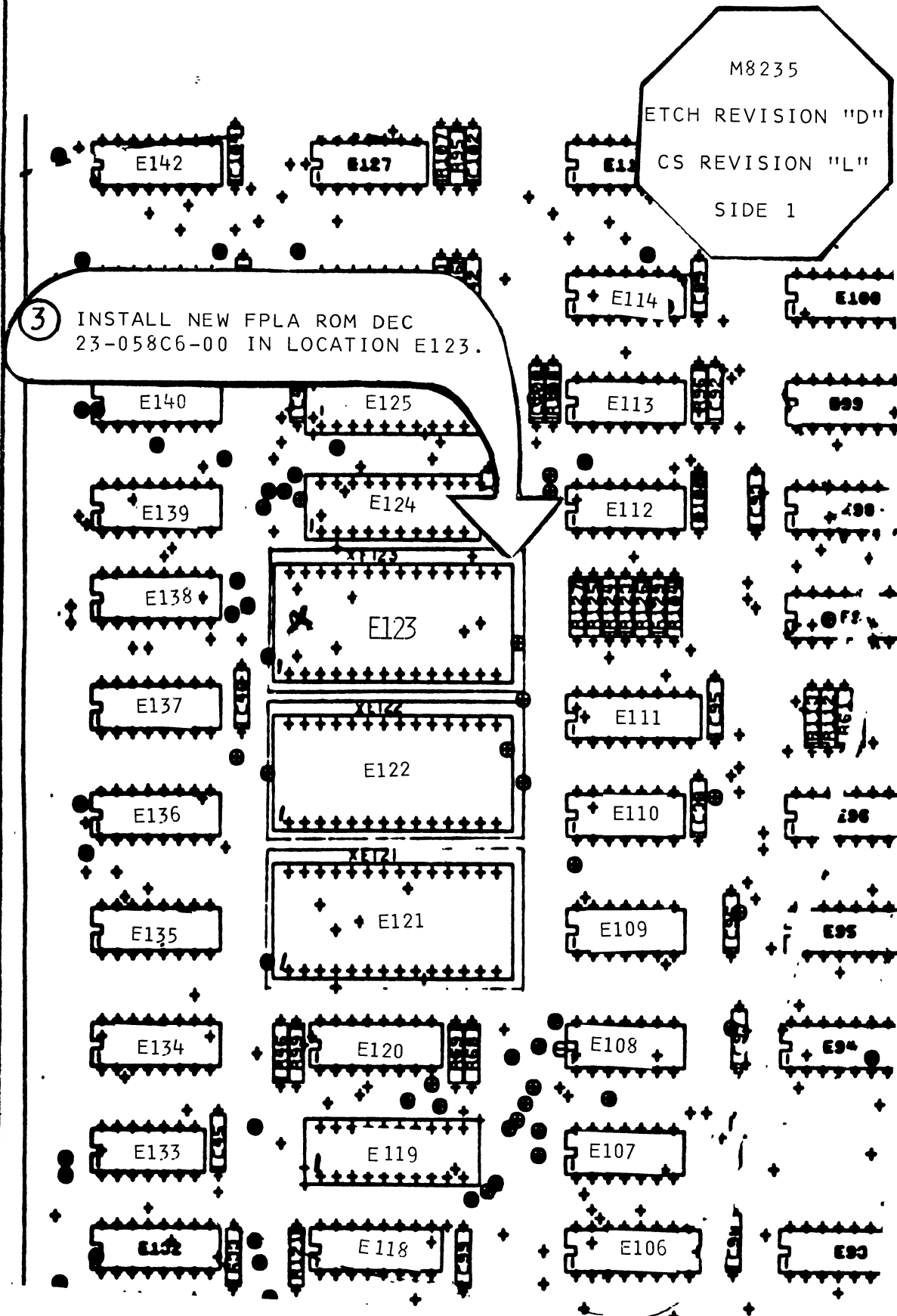


FIGURE 1.



THE FOLLOWING TABLE SHOWS THE RELATIONSHIP BETWEEN THE BACKPANEL JUMPERS AND THE SYSTEM ID REGISTER BITS:

SERIAL NUMBER:

BIT 00 JUMPER J13-VV TO UU
 BIT 01 JUMPER J13-TT TO SS
 BIT 02 JUMPER J13-RR TO PP
 BIT 03 JUMPER J13-NN TO MM
 BIT 04 JUMPER J13-LL TO KK
 BIT 05 JUMPER J13-JJ TO HH
 BIT 06 JUMPER J13-FF TO EE
 BIT 07 JUMPER J13-DD TO CC
 BIT 08 JUMPER J13-BB TO AA
 BIT 09 JUMPER J13-Z TO Y
 BIT 10 JUMPER J13-X TO W
 BIT 11 JUMPER J13-V TO U

NN FIELD:

BIT 15 JUMPER J13-L TO K
 BIT 16 JUMPER J13-J TO H
 BIT 17 JUMPER J13-F TO E
 BIT 18 JUMPER J13-D TO C

XX FIELD:

BIT 19 JUMPER J13-B TO A
 BIT 20 JUMPER J12-VV TO UU
 BIT 21 JUMPER J12-TT TO SS
 BIT 22 JUMPER J12-RR TO PP
 BIT 23 JUMPER J12-NN TO MM

TYPE:

BIT 24 JUMPER J12-LL TO KK
 BIT 25 JUMPER J12-JJ TO HH
 BIT 26 JUMPER J12-FF TO EE
 BIT 27 JUMPER J12-DD TO CC
 BIT 28 JUMPER J12-BB TO AA
 BIT 29 JUMPER J12-Z TO Y
 BIT 30 JUMPER J12-X TO W
 BIT 31 JUMPER J12-V TO U

PLANT CODE:

BIT 12 JUMPER J13-T TO S
 BIT 13 JUMPER J13-R TO P
 BIT 14 JUMPER J13-N TO M

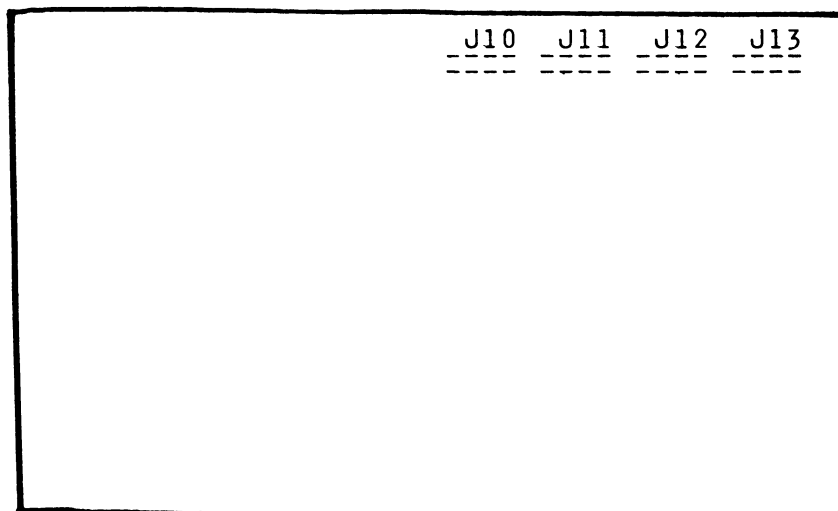


FIGURE 4. LOCATION OF JUMPERS ON THE KA780 BACKPANEL

EXPANDED VIEW OF J12&J13

B	D	F	J	L	N	R	T	V	X	Z	BB	DD	FF	JJ	LL	NN	RR	TT	VV
.
A	C	E	H	K	M	P	S	U	W	Y	AA	CC	EE	HH	KK	MM	PP	SS	UU

NOTE: BOTTOM PINS ARE ON THE GROUND PLANE. JUMPER APPROPRIATE PINS TO GROUND PLANE.

NOTE: WHEN UPDATING SYSID REGISTER, NOTE THAT THE ECO HAS SOFTWARE IMPLICATIONS, THEREFORE, THE REVISION CHANGE IS NUMERIC RATHER THAN ALPHABETIC.

- UPDATE THE "REVISION LETTER FIELD" AND THE "REVISION NUMBER FIELD" OF THE SYSTEM ID REGISTER BY PLACING BLUE CONNECTORS (DEC 12-14314) ON THE KA780 BACKPANEL AS FOLLOWS:

	<u>Designator</u>	<u>Bit</u>	<u>In/Out</u>	
REVISION LETTER FIELD	J13-D	18	IN	
	J13-F	17	IN	
	J13-J	16	IN	= 0 (NO LETTER)
	J13-L	15	IN	
REVISION NUMBER FIELD	J12-NN	23	IN	
	J12-RR	22	IN	
	J12-TT	21	OUT	= 4
	J12-VV	20	IN	
	J13-B	19	IN	

THE SYSTEM ID REGISTER BITS ARE SELECTED FROM JUMPERS ON THE KA780 BACKPANEL. AN INSERTED JUMPER DECODES AS A "ZERO". NO JUMPER DECODES AS A "ONE". THE SYSTEM ID REGISTER IS ACCESSIBLE FROM THE CONSOLE BY READING ID REGISTER #03 OR BY EXECUTING AN MFPR INSTRUCTION FROM PROCESSOR REGISTER #3E.

NOTE: FOR FURTHER INFORMATION ON THE SYSTEM ID, SEE APPENDIX ON PAGES 10 THRU 12.

DIAGNOSTIC UPDATE

7. POWER UP THE VAX.
8. UPDATE SITE CONSOLE FLOPPIES AT WCS 120 TO WCS 122.
9. UPDATE "FIELD SERVICE ACCOUNT" WITH DIAGNOSTIC SUPERVISOR REVISION 5.4. (ALSO IN THE REV "V" DIAGNOSTIC UPDATE RELEASE)
10. UPDATE "FIELD SERVICE ACCOUNT" WITH ALL OTHER DIAGNOSTICS IN REVISION "V" DIAGNOSTIC UPDATE THAT APPLY TO THE SITE.
11. RUN DIAGNOSTICS EVKAB.EXE, EVKAC.EXE, EVKAD.EXE, AND EVKAE.EXE. FOR ONE PASS EACH TO VERIFY PROPER OPERATION.

NOTE: THESE DIAGNOSTICS ARE FIRST RELEASE IN THE DIAGNOSTIC REV "V" UPDATE RELEASE. THEY REPLACE FORMER DIAGNOSTICS ESKAX.EXE, ESKAY.EXE, ESKAZ.EXE.

12. UPDATE SITE DOCUMENTATION TO REFLECT PROPER REVISION LEVEL.
13. REPORT INSTALLATION OF THIS FCO ON LARS.

WCS COMPATIBILITY NOTE

1. WHEN SYSTEM IS REVISION LEVEL 4 (23-058C6-00 INSTALLED), FLOPPIES AT WCS REVISION 121 OR EARLIER MUST NOT BE USED.
2. WHEN SYSTEM IS AT EARLIER REVISION THAN LEVEL 4 AND NEW WCS REVISION 122 FLOPPIES ARE USED, A MISMATCHED MESSAGE WILL OCCUR DURING STARTUP BUT BOOT WILL CONTINUE WITH NO FURTHER PROBLEMS.
3. WHEN SYSTEM IS AT REVISION LEVEL 4 AND WCS IS REVISION 122, AND SYSTEM OPERATES NORMALLY, THEN MULD INSTRUCTION PROBLEM IS CORRECTED. (THIS FCO HAS BEEN INSTALLED.)

SYSTEM ID REGISTER

The following information is a break down of the contents of the System ID Register. The first page is a break down of ID Register 3. The second page is the break down of the back-plane jumpers and bit assignments.

The following is an example of the contents of ID Register 3:

>>>E/ID 3
ID 00000003 0118808E

BITS 31 thru 24 equal A 01 stating that the CPU is an 11780.

BITS 23 thru 19 equal A 3 stating the Number REV is 3.

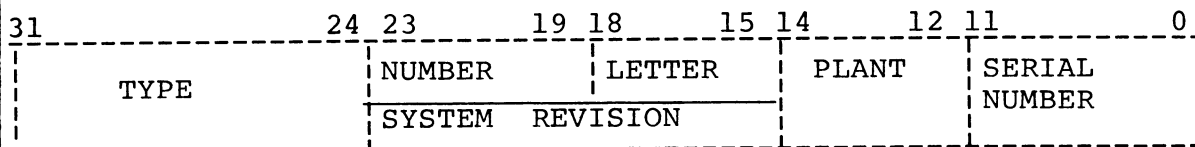
BITS 18 thru 15 equal A 0001 which is the Letter REV A.

BITS 14 thru 12 equal A 000 which says the Volume Plant is Salem

BITS 11 thru 0 equal 08E HEX which is equal to a decimal 142

which is the CPU Serial Number.

SYSTEM ID REGISTER 3



TYPE = 01 DEFINES 11780 CENTRAL PROCESSOR WITH VALID SYSTEM REVISION, PLANT CODE, AND SERIAL NUMBER INFORMATION

01 = 11780
02 = ?
03 = ?

SYSTEM REVISION

NUMBER THE NUMBER FIELD IS THE REVISION NUMBER OF THE CPU

00000 = 0	00001 = 1
00010 = 2	00011 = 3
00100 = 4	00101 = 5

ETC.

LETTER THE LETTER FIELD IS THE LETTER REVISION OF THE CPU

0000 = NO LETTER	1000 = J
0001 = A	1001 = K
0010 = B	1010 = L
0011 = C	1011 = M
0100 = D	1100 = N
0101 = E	1101 = P
0110 = F	1110 = R
0111 = H	1111 = S

PLANT VOLUME MANUFACTURING PLANT CODE

0 = NI
1 = GA

SERIAL NUMBER 11780 UPPER ASSEMBLY SERIAL NUMBER

MODULE ECO HISTORY

ECO HISTORY - M8235

ETCH BOARD REVISION

C

ECO NUMBER

001

002

003

004

ECO DATE

2-77

10-77

1-78

3-78

5-78

PRODUCTION CS

B

C

D

E

E1

DOCUMENTATION CS

FIELD REWORK CS

NOTES:

ECO HISTORY -

ETCH BOARD REVISION

D

ECO NUMBER

004

005

008

009

ECO DATE

5-78

1-79

1-80

PRODUCTION CS

F

H

H1

J1

DOCUMENTATION CS

FIELD REWORK CS

H*

J1***

NOTES:

**REWORK INCLUDED IN FCO VAX-R0001.

***REWORK INCLUDED IN FCO VAX-R0004.

ECO HISTORY -

ETCH BOARD REVISION

E

ECO NUMBER

006

007

009

ECO DATE

8-79

10-79

PRODUCTION CS

J

K

L

DOCUMENTATION CS

FIELD REWORK CS

* K**

***L

NOTES:

**BY EXCHANGE IN THE FIELD.

***THIS ECO INCLUDED IN REWORK FOR FCO VAX-R0003.

****REWORK INCLUDED IN FCO VAX-R0004.

ECO HISTORY -

ETCH BOARD REVISION

ECO NUMBER

ECO DATE

PRODUCTION CS

DOCUMENTATION CS

FIELD REWORK CS

NOTES: